UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

BLUE SPIKE, LLC, *Plaintiff*, v. TEXAS INSTRUMENTS, INC., et al., *Defendants*.	§ § § § § § § § § § §	CASE NO. 6:12-cv-499 MHS LEAD CASE Jury Trial Demanded

BLUE SPIKE, LLC'S REPLY CLAIM CONSTRUCTION BRIEF

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INTRODUCTION

Defendants' proposed constructions are overreaching attempts to avoid infringement by reading limitations from the specification into the claims and violating other canons of Claim Construction. Defendants' citations to the record are largely taken out of context. When read in context, the record shows that Blue Spike's proposed constructions are more appropriate.

ARGUMENT

1. "An Abstract" has its plain and ordinary meaning – "a summary."

The four patents-in-suit describe an "abstract" as a summary of a signal. Akin to the ABSTRACT section that appears on the cover of every patent issued from the United States Patent and Trademark Office (USPTO or PTO). To be sure, there can be more than one summary for an original signal, and in certain dependent claims additional limitations are added to the term "abstract" or summary to explain what those additional limitations are, if any. This plain and ordinary meaning of Abstract is consistent with the intrinsic record, where "[d]ifferences among claims can be useful [as] a guide in understanding the meaning of particular claim terms." *See Phillips, 415 F.3d at 1314.*

Here, the term "abstract" is further limited in various ways with additional modifiers such as "digital reference signal", "data-reduced", "perceptual" or countless other ways. For example, consider Claim 19 of the '175 Patent: "[1]digital [2]reference [3]signal abstract is [4]similar to said digital reference signal and [5] reduced in size compared to said reference signal." Dkt. 1701-4 at BLU59. Claim 19 adds in 5 additional limitations and/or modifiers to the term "Abstract," which, again akin to the ABSTRACT found on cover of any patent, is merely a summary. Here, in Claim 19 "abstract" is a

summary of "digital reference signal" and it has similar characteristics to the digital reference signal but it is required to be smaller in size.

Similarly, Claim 11 of '472 patent provides another example, "a first processor for creating an abstract [summary] of each reference signal received based on perceptual characteristics representative of parameters to differentiate between versions of the reference signal." Dkt. 1701-3 at BLU42 (Fig. 1 *Infra*). Claim 11 describes an "abstract" or summary that is created for each reference signal received and includes [1] perceptual characteristics representative of parameters that allow it to be differentiated from other versions of the same reference signal.

> [Claim]11. A computerized system for monitoring and analyzing at least one signal:
>
> [1] a processor that creates an **abstract of a signal** using selectable criteria;
>
> [2] a first input that receives at least one reference signal to be monitored, said first input being coupled to said processor such that said processor may generate an abstract for each reference signal input to said processor;
>
> [3] a reference database, coupled to said processor, that stores abstracts of each at least one reference signal;
>
> [4] a second input that receives at least one query signal to be analyzed, said second input being coupled to said processor such that said processor may generate an abstract for each query signal;
>
> [5] **a comparing device**, coupled to said reference database and to said second input, that compares an abstract of said at least one query signal to **the abstracts** stored in the reference database to determine if the abstract of said at least one query signal **matches** any of the stored abstracts,
>
> [6] wherein the comparing device identifies **at least two abstracts** in the reference database that **match** the abstract of said at least one query signal and an **index of relatedness** to said at least one query signal for each of said at least **two matching** abstracts. Dkt. 1701-1, '472.

FIGURE 1 – Claim 11 of the '472 Patent.

Thus, in Claim 11 of the '472 patent the emphasis of the abstract or summary of a signal is based upon perceptual characteristics, whereas in contrast, in Claim 19 of the '175 patent, which has different limitations, the emphasis is based on being reduced to a smaller size. This is but one example chosen randomly to highlight the problem with Defendants' proposal that seeks to import limitations from the specification into every claim. Defendants' proposal simply doesn't work. Defendants urge the Court to commit error by construing the term "abstract" in a vacuum and not informed by the language of the claims and specification. Defendants' proposed construction is improper as "[t]he language of the claim frames and ultimately resolves all issues of claim interpretation." *Abtox, Inc. v. Exitron Corp*., 122 F.3d 1019, 1023 (Fed. Cir. 1997).

A. Data-reduced

Blue Spike agrees that one of the goals of the invention is to produce a data-reduced representation of a media sample. An overriding purpose, however, is to provide the ability to efficiently match, distinguish, and analyze the similarities between two media samples. A smaller abstract (or a summary) that lost this comparing functionality would similarly lose its benefit. However, an abstract that was conceivably larger in size may still provide a benefit of more efficient comparisons. Thus, although data reduction is certainly a primary focus of an "abstract," it is not necessary and such importation of a limitation from the specification is impermissible.

This is evidenced in the claims themselves, as none of the claims include a limitation that an abstract be reduced in size, except for Claims 1, 5, 7, 8, 9-11, and 17-19 of the '175 patent. The inventors were well aware of what they were doing when they wrote their claims, and the language of the claims supersedes all. *Abtox*, 122 F.3d at 1023.

Defendants argue that the purpose of the abstract is that it is intended to be the "smallest amount of data to get the comparing job done." Resp. at 9. Assuming, *arguendo,* this characterization is true, it is still possible that the abstract would be larger than the original signal because of the volume of data points that would be required to be distinguished. The larger abstract might still be the smallest it could be, but it would be required to be larger than the original in order to get the job done. Defendants, then, are mistaken by saying that the "entire purpose of the abstract" is to be reduced in size; rather, it is to form a comparison. '175,Col.7:15-34 (noting in an example that compression that robs an abstract of the ability to distinguish songs is excessive).

B. Smallest amount of data that can differentiate signals.

Defendants' incorrectly argue that an "abstract" must be the smallest amount of data that can differentiate signals. Defendants' argument relies entirely on a single passage of the specification:

> signal abstracts are created using data reduction techniques to determine the smallest amount of data, at least a single bit, which can represent and differentiate two digitized signal representations for a given predefined signal set.

'175, Col.10:12-16. Defendants misread this passage. This passage instructs that an abstract attempts to find the smallest means of differentiating two digital signals. Each point of differentiation makes up the "predefined signal set"; it is a set of differing characteristics. This passage does *not* instruct that the abstract itself must be the smallest size possible. Even the Morpho defendants "disagree with the other Defendants that an 'abstract' must be the *smallest amount of data* that can represent and differentiate two signals *for a predefined signal set.*" Resp. at 12 (emphasis original).

C. Predefined signal set

Defendants once again misconstrue the same passage of the specification when they insist that an abstract must be compared to a predefined set of reference signals. Again, Defendants rely on the following passage at Col.10:12-16 of the '175 patent block quoted above. Here, "predefined signal set" does not indicate a predefined set of reference signals, but a set of points within a signal that can be compared. In fact, the same passage indicates that "two digitized signal representations" are differentiated by a given predefined signal set. Defendants' proposed construction would render the "two digitized signal representations" redundant, and the passage nonsensical.

Even if "predefined signal set" referred to a predefined set of reference signals, the passage describes the creation of an abstract, not its ability to compare. An abstract provides comparison capabilities beyond what would be available if it were only comparing against a predefined set of reference signals. First, an abstract could determine a version beyond what existed when it was created. Second, defendants ignore a null set scenario as explained in the specification. '175, Col.4:7-17, Col.10:35-39, Col.11:7-21. Even the Morpho defendants agree with Blue Spike on this front. Resp. at 12 ("disagree[ing] with the other Defendants that an "abstract" must be the *smallest amount of data* that can represent and differentiate two signals *for a predefined signal set.*") (emphasis in original).

D. "Abstract" is a definite term

The term "abstract" is not indefinite, and Defendant's have taken Blue Spike's argument out of context.[1] Defendant's construction that includes "data-reduced" and

[1] Blue Spike will address all of Defendants indefiniteness contentions in its forthcoming Opposition.

"perceptual characteristics" is impossible to map to all of the claims because only certain claims contain this limitation as explained above. This only further substantiates Blue Spike's position that the canon of claim differentiation here controls.

2. "A comparing device"

As explained in its opening brief, "A comparing device" or "comparator" is a device that "compares two quantities and determines their equality." Dkt. 1700 at 17 (citing The Computer Glossary 72 (8th ed. 1998), Ex. 7 (BLU023598-23600); IEEE 100, The Authoritative Dictionary of IEEE Standard Terms (7th Ed. 2000), Ex. 8 (BLU0023619-622), and the Dictionary of Computing (4th Ed. 1996), Ex. 9 (BLU023565-67). Defendants provide no rebuttal to Plaintiff's definition that is consistent with the use of the term "a comparing device" and "the comparator device" in the claim language at Claims 9, 11, 12, and 14 of the '472 patent; Claims 1, 30, 32, and 33 of the '700 patent; and Claims 1, 2, 8, 9, 10, 11, 24 of the '494 patent. Similarly as with other disputed terms, Defendants gloss over the written description as they did with the claim language. Here, the specification is consistent with the use of the disputed term "a comparing device" or "comparator." *See* '175,Col.3:32-60; Col. 8:58-9:12; Col. 9:20-40.

Instead, Defendants embark on spending five (5) pages in their brief to attempting to indicate that "a comparing device" is a written in means-plus-function language and thus governed by ¶112, ¶6. Resp. at 16-20. But Defendants' case law is simply not relevant or readily distinguishable. And, as further discussed below, referring to Claim 11 of the '175 Patent is illustrative that "a comparing device" does not need construction of one of ordinary skill in the art.

In Claim 11, "a comparing device" is coupled to a reference database and to "said second input." This is consistent with the use of the term "comparing device" in the specification that describes various setups of the comparator. *See* '175, Col.3:32-60; Col. 8:58-9:12; Col. 9:20-40.

A comparing device, also known as a "comparator" to one of ordinary skill in the art is utilized in the Logan patent that is mentioned in one of the four notices of allowances in the prosecution of history. *See* Ex. 6, Logan patent, *e.g.* Cover Page "ABSTRACT … a **comparator for comparing portions** of the broadcast signal …"; Col.3:14-17 ("**The comparator** can compare the introduction signal to the segment to generate a deviation signal which **represents the differences between** the broadcast programming signal and the introduction signal."); Col.6:2-9 ("**The comparator can be a electrical circuit card assembly, a software program, or a combination of both**. As will be explained in greater detail hereinafter, **the comparator** can **employ known signal processing techniques that identify a signal by comparing the signal, to a library of known signals or signal characteristics**."); Col.8:61-9:5 (more illustrations of a comparing device set-ups available in 1999-2000).

In fact, the Examiner not only mentioned the Logan reference in allowing claims to be issued, but even stated that the claims were being allowed over Logan because "Logan et al. do[es] not teach . . . a controller coupled to the first input, the processor, **the comparing device,** the reference database, and the storage medium, …"). Ex. 10 at 4 (BLU000090); *see also* Ex. 10 at 5-6 (BLU000091-92)("Logan *et al.* do[es] not teach **the comparing device** identifying at least **two abstracts** in the reference database that **match** the abstract of said at least one query signal and an **index of relatedness** to said at least

one query signal for each of said **at least two matching abstracts**.").

Blue Spike relies upon its opening brief to rebut the other means-plus-functions arguments made by defendants for the other phrases that Blue Spike believes should be provided their plain and ordinary meaning.

3. "related to"

The term "related to" needs no construction. Defendants agree that "related to" normally "implies similarity, not equality." Resp. at 21. But defendants are mistaken that there is "no support in the specification to identify something that is 'close'." *Id.* Defendants ignore the entire second embodiment ('175, Col.14:39-15:4) and the description of abstracts of songs performed by different artists ('175 Col.7:4-34). As discussed in the section for the term "match," two matches are further described by an index of relatedness that identifies just how similar they are to the original. *See e.g.* '472 Patent, Claim 11.[2]

4. "a compare result"

Blue Spike disagrees that construction of "a compare result" hinges only on construction of "match" and "abstract." *Contra* Resp. at 21. A compare result indicates more than a comparison between two abstracts. For instance, Claim 11 of the '175 patent compares a query abstract to a "**plurality** of digital reference signal abstracts stored in said database to generate a compare result." '175, Col.17:34-35. Thus, in this instance a query abstract is compared to many reference abstracts. The result of that comparison could be no matches, one match, multiple matches of varying similarity, et cetera. Defendants'

[2] Defendants reference the index of relatedness, but attempt to distinguish it as describing a version. Resp. at 21. While this distinction is irrelevant—since versions only further indicate an abstract's ability to match similar, not necessarily identical, signals—Defendants are still mistaken. Claim 11 of the '472 makes no mention of "versions."

construction is too limiting, even if "match" and "abstract" were construed in Blue Spike's favor.

5. "Index of Relatedness" and "Match/Matches/Matching"

Violating another Cannon of Claim Construction, defendants jump straight to a dictionary definition, completely devoiding their analysis of the claim language and the specification. This is improper. Claim construction begins with and "remain[s] centered on the claim language itself." *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004).

Tellingly, the claim language supports Plaintiff's position that "matching" does not mean "indistinguishable" as Defendants suggest. Resp. at 14. For example, Claim 11 of the '472 patent demonstrates that two separate "matches" are compared to one another through an index of relatedness. This demonstrates how the term "matching" used in the context of the patent as a verb and could not mean "indistinguishable" an adjective. If these two "matches" had to be identical matches as Defendants suggest, then the index would serve no purpose.[3]

"A claim interpretation that excludes a preferred embodiment from the scope of the claim 'is rarely, if ever, correct.'" *Globetrotter Software, Inc. v. Elam Computer Grp., Inc.*, 362 F.3d 1367, 1381 (Fed. Cir. 2004) (*quoting Vitronics Corp.*, 90 F.3d at 1583). Here, defendants invite judicial error by suggesting constructions that would exclude the

[3] Defendants consistently attempt to avoid the claim language, the best source for construing the meaning of terms and here there are over 100 claims. Here, the disputed phrase "index of relatedness" supports Plaintiff's plain and ordinary meaning of the term "matching." How much of a match depends on the index of relatedness in some cases. As explained in Blue Spike's tutorial, there is never a requirement for an exact match or an identical match as Defendants attempt to strain the plain and ordinary meaning in an attempt to avoid infringement.

teachings of the second sample embodiment and its use of the term "matches" being incorrectly construed as "in indistinguishable from." Resp. at 14.

First, this embodiment explains abstracts may be used to "find[] paintings of sunsets and sunrises." '175,Col.14:37-61. For example, an abstract may be generated of an image of a sun, "compressing the data to its essential characteristics," and then a search may be run to find "**matches** in a database of other visual images" by other artists. '175, Col.14:57. Second, an abstract of a suspect's photograph may be compared against police sketches in search of "suspects whose identity **matches** the sketch of the police artist." '175,Col.14:62-65. In both of these examples, a match is shown to be much more than an "indistinguishable" copy. Instead, matches occur when aspects of very different media samples (*e.g.* a photographs and drawings) have similar characteristics.[4]

While an abstract has the capability of "matching" disparate signals, it by no means prevented from "matching" identical signals. Identical matches are envisioned in the first embodiment where songs played on the radio are tracked. Defendants discuss at length the issue of recalibration, which would apply to an embodiment such as embodiment one, rather than embodiment two. In situations where identical matches are warranted, the patents-in-suit introduce the ideas of recalibration, a hash, a signature, or other cryptographic protocols. '175, Col. 10:46-55. Additionally, "recalibration" isn't a bad thing as Defendants' suggest, it is merely a way to obtain more accurate of time as additional information becomes available.

The only intrinsic evidence Defendants rely on is one sentence of the 2000-page

[4] Defendants misunderstand the use of the term "1-to-many" matches. Resp. at 15, Fn. 17. A 1-to-many match indicates that one reference signal may match any number of distinguishable reference signals if a certain quality is similar among them.

prosecution history to support their proposed construction that the term "a match" should be construed to mean "an indistinguishable copy." It pertains to a discussion about pending Claim 107. *See* Resp. at 15 *citing* Ex. 3 (Dkt. 1751-4 at 4). Blue Spike disagrees that even this citation supports Defendants proposed construction. In fact, the inventors on that very same page explain to the examiner that when two objects are **"indistinguishable"** that is referred to as a "**collision of data**" not as a match. Dkt. 1751-4 at 4.

Accordingly, Blue Spike requests that the Court construe Matching and the other disputed terms with the plain and ordinary meaning as described above and its opening brief.

6. "selectable criteria" — plain and ordinary meaning – criteria that is selectable.

The disputed term "selectable criteria" is defined as "criteria that is selectable." Defendants ignore the examples provided by Blue Spike in its Opening Brief. Dkt. 1700 at 19-22. Defendants attempt to limit the criteria to "rules" is improper and is not supported by the claim language or the specification. *See e.g.* Claims 9, 11 of the '472 Patent; ABSTRACT of the '472 Patent. In the ABSTRACT, the inventors recite "Moreover, the method by which abstracts are generated can be programmable based upon selectable criteria." Inventors do not limit themselves to specific "rules" by the use of "can be programmable" as a modifier. Defendants are incorrect to that an abstract will be different based on different criteria. Sometimes, sure, or the criteria wouldn't be helpful, but not necessarily each time. As explained in its Opening Brief, Blue Spike requests the Court adopt its simple construction "criteria that is selectable" to avoid confusion to a jury.

7. "reference signal/query signal"

Defendants attempt improperly import limitations from the specification. Resp. at

20. First, Defendants attempt to limit what the signals may be to only include "the entire work." There is no support in the claim language or the specification to include such a limitation. Defendants talk about the "signal" and "object" but ignore that an object can be portion of the signal. In fact, there is nothing to limit a "signal: from being a portion of an original, larger signal.

Second, Defendants attempt to improperly limit the signal to being "uncompressed." Uncompressed is a modifier of the term "signal" and the claim language demonstrates that signal appears with and without modifiers. For example, Claim 1 of the '472 Patent does not require the signal that is being monitored to uncompressed anymore that it requires it to be compressed. Dkt. 1701-1 at Claim 1 ("…receiving at least one reference signal to be monitored…). Then, in contrast Claim 1 of the '175 patent requires that the reference signal be digital by using the term "digital" to modify "reference signal." *See e.g.* Claim 1 of the '175 patent ("a digital reference signal"). Moreover, the "Compression" itself is in dispute and creates additional uncertainty. "Compression" usually stands for lossly or lossless compression, like zipping a file or creating a JPEG from a raw image. However, the inventors of the patents-in-suit 14 years ago described it slightly differently as "The ability to massively compress a signal to its essence—which is not strictly equivalent to 'lossy' or 'lossless' compression schemes or perceptual coding techniques, but designed to preserve some underlying 'aesthetic quality' of the signal—represents a useful means for signal analysis in a wide variety of applications." '175, Col. 7:10-15. If the Court adopts the Defendants' proposal and uses the word "compression," it will very likely confuse the jury or require yet another claim construction of the term "compression" in the future, which again like "uncompressed" is a simple modifier that

shouldn't be included into the definition of signal.

8. Additional Disputed Terms.

Blue Spike relies upon its opening claim construction brief for the remaining disputed terms.

Respectfully submitted,

/s/ Randall T. Garteiser
Randall T. Garteiser
Lead Attorney
Texas Bar No. 24038912
rgarteiser@ghiplaw.com
Christopher A. Honea
Texas Bar No. 24059967
chonea@ghiplaw.com
Christopher S. Johns
Texas Bar No. 24044849
cjohns@ghiplaw.com
GARTEISER HONEA, P.C.
218 North College Avenue
Tyler, Texas 75702
(903) 705-7420
(888) 908-4400 fax

Kirk J. Anderson
California Bar No. 289043
Peter S. Brasher
California Bar No. 283992
GARTEISER HONEA, P.C.
44 North San Pedro Road
San Rafael, California 94903
(415) 785-3762
(415) 785-3805 fax

Counsel for Blue Spike, LLC

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/s/ Randall T. Garteiser